



American Association of
State Highway and
Transportation Officials

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Darrel Rensink, President
Director
Iowa Department
of Transportation

Francis B. Francois
Executive Director

July 24, 1997

Office of the Secretary
Federal Communications Commission
Washington, D.C. 20554

Re: RM-9096

Dear Sir or Madame:

Attached are an original and nine copies of AASHTO's comments concerning the subject proceeding.

If you have any questions or comments concerning these comments, do not hesitate to so inform me.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Francis B. Francois", is written over a horizontal line.

Francis B. Francois
Executive Director

FBF:LM:sp

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of)
)
Petition of the Intelligent)
Transportation Society of America) RM--9096
for Amendment of the Commission's)
Rules To Add Intelligent Transportation)
Services (ITS) as a New)
Mobile Service With Co-Primary Status)
in the 5.850 to 5.925 GHz Band)
)

PETITION FOR RULEMAKING

To: The Commission

Comments

The American Association of State Highway and Transportation Officials (AASHTO) respectfully submits these comments in the Commission's Petition for Rulemaking in the above captioned proceeding.

AASHTO is the national association of the state departments of highways and transportation in the 50 states, the District of Columbia and Puerto Rico. Its scope includes all five principal transportation modes, and its major purpose is to foster the development, operation and maintenance of an integrated national transportation system.

AASHTO, through its Special Committee on Communications, has been involved in matters related to radio frequency communications and associated systems for more than 40 years. AASHTO serves as the Commission's certified frequency coordinator for the Highway Maintenance Radio Service. AASHTO is an active member of the Intelligent Transportation Society of America (ITSA) with membership of many ITSA committees including the ITSA Telecommunications Committee.

POSITION STATEMENT

Our national transportation infrastructure is the engine which powers our economy, employing 12 million persons, consuming one of every five dollars of total household spending, and accounting for 11 percent of the nation's economic activity. Improvements in transportation efficiency and productivity are essential to a competitive economy. A robust, growing economy requires a transportation system capable of sustaining it.

However, travel trends indicate that our transportation system may face substantial challenges unless we take action now. In the past three decades, travel in the United States has grown at a rate three times as fast as the growth of the population. In metropolitan areas in particular, highways can no longer meet the demand being placed on them. Traffic congestion on urban interstates has ballooned from 41% in 1975 to 69% in 1993, costing our 50 largest urban areas an estimated \$43 billion annually. Traffic congestion also results in the deterioration of our nation's air quality.

Intelligent Transportation Systems have the potential to increase the efficiency of the nations surface transportation system. Among the benefits which will result from the widespread deployment of these systems is a reduction in the amount of time drivers spend idling in traffic. This time represents a significant economic loss while increasing the level of air pollution in metropolitan areas. The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) provided funding for the testing of many types of ITS systems.

These tests have demonstrated the ability of Dedicated Short Range Communications (DSRC) based systems to reduce traffic delays by: (1) improving incident detection and response time; (2) reducing traffic slowdowns caused by toll collection systems, safety inspections, border crossings, and weigh stations; (3) providing in-vehicle information regarding road conditions, construction zones, and other potential hazards which can cause accidents and delays; (4) increasing public transit ridership by improving response time and providing more accurate arrival, departure and delay information to passengers; and (5) increasing the speed and efficiency of multi-modal transport by automating freight transfer, inventory, and access control functions.

In addition, DSRC-based systems can dramatically improve highway safety. In particular, in-vehicle warning systems can significantly reduce the number and severity of accidents at hazardous roadway intersections and highway-rail intersections--the site of approximately one-third of all roadway accidents. Signal priority systems allow emergency vehicles to hold or change traffic signals for safer and faster response times. Finally, the model automated highway deployment--currently operating on a section of freeway in San Diego--is demonstrating the enormous safety and time-saving benefits of hands-free driving.

Appendix G of the Petition for Rulemaking lists many of the systems which will make up an Intelligent Transportation System. These systems have been installed and tested at many locations throughout the United States. The results support the contention that providing instant information regarding road and weather conditions along with associated information is beneficial to motorists.

The completed tests utilized a variety of communications spectrum frequency bands based upon availability in a given area. In order for Intelligent Transportation Systems to achieve maximum effectiveness, a spectrum allocation which provides for interference free operations of these systems is needed.

The benefit of a nationwide system operating in a frequency band allocated specifically for that purpose cannot be overstated. Such a system would allow a motorist to purchase a single device which is capable of receiving transmissions from a variety of roadside information systems. The lack of a common frequency band for the operation of ITS equipment would result in the need for the purchase and installation of multiple devices in each vehicle in order to communicate with the multitude of systems operating in different frequency bands.

The end user would also benefit from a lower purchase price for ITS related equipment if a common spectrum allocation is adopted. This results from greater economies of scale since the discrete electronic components used in the manufacture of the aforementioned equipment would be mass produced and distributed to all manufacturers.

Conclusion

Intelligent Transportation Systems can increase the efficiency of the nations surface transportation system.

The user services which help make up the total Intelligent Transportation System depend upon wireless technologies and the necessary radio frequency spectrum for the operation of these systems.

The Petition For Rulemaking, RM-9096 describes the potential usage and benefit of systems which could operate in the 5.85-5.925 GHz Band. The petition also recognizes the other uses and users of this frequency band. A technical analysis indicates that the proposed ITS functions can operate on a primary basis with existing systems which currently occupy the 5.85-5.925 GHz band. The technical parameters of the proposed ITS facilities minimize the possibility of harmful interference between the ITS and other uses of this frequency band.

AASHTO respectfully requests that the Commission consider and act favorably on these comments as it proceeds with this important undertaking.

Respectfully submitted,
American Association of State Highway
and Transportation Officials, Special
Committee on Communications

By: 

Francis B. Francois
Executive Director,
American Association of
State Highway and
Transportation Officials